

Prof. D. K. Maheshwari

Name : Dr. D. K. Maheshwari
Sex : Male
Date of Birth : 12th September 1953



Educational Qualifications

- Ph.D. (Botany) from Agra University 1977
- M.Sc. (Botany) from Agra University 1973

Employment history

- Professor, Department of Botany & Microbiology, Haridwar, Uttarakhand, w.e.f. 15th October 1990.
- Reader, Department of Microbiology, Barkatullah University, Bhopal (MP) from January 1986 to October 1990.
- Lecturer, Department of Botany, DAV (PG) college, Meerut University Muzaffarnagar (UP).

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Publications:

- Research Papers, Review Articles - **154**
- Books - **21**
- Ph. D. - **44**

Ph. D awarded:

S. No.	Topic	Year	Name of the Awardee
1	Comparative studies on the hydrobiology and phytoplanktonic of a lake and perennial pond with reference to seasonal variations	1987	Y. P. Jain
2	Studies on the effect of growth hormones and nematicides on the root knot of some vegetable crop plants	1987	Satya Pal Singh
3	Microbial degradation of cellulosic waste of sludge of paper mills and forest based industries	1990	Seema Gohade
4	Studies on the cellulase production by certain <i>Trichoderma</i> sp.	1990	Hasrat Jahan

5	Studies on the effect of growth hormones and nematicides on the root knot of some vegetable crop plants.	1990	Rakesh Paliwal
6	Impact of carbaryl and 2, 4-D on physiological and biochemical activity of Rhizobia species.	1991	Meenu Gupta
7	Impact of carbaryl and 2, 4-D on physiological and biochemical activity of Bradyrhizobial species.	1992	Ritu Shrivastava
8.	Investigations on mercury and lead tolerance potential in some cellulolytic fungi.	1992	Anwar Ahmad
9	Utilization of lignocellulosic biomass for ethanol production.	1994	Jaspal Kaur
10	Investigation on growth of some tree legumes in degraded land amended with <i>Rhizobium</i> and <i>Eichhornia</i> residue.	1995	Ajay Khandelwal
11	Studies on the <i>Rhizobium</i> symbiotic with <i>Acacia nilotica</i> and <i>Acacia catechu</i> with special reference to substandard soil.	1995	Rajesh Sawney
12	Studies on waste water, the irrigation potential and its effect on leguminous plants and associated rhizobia.	1995	Surendra Kumar
13	Bioconversion of aquatic biomass residue by cellulolytic fungus <i>Coriolus hirsutus</i> (Wolfen ex. fries) auelet.	1997	Ravindra Sharma
14	Biomass production of certain aquatic macrophytes and their role in nutrient removal from polluted water.	1997	Chaman Lal
15	<i>Rhizobia</i> tree legumes (<i>Acacia</i> species) symbiosis in substandard soil and technology development for inoculum.	1997	Hemender Kumar
16	Biocontrol of certain pathogenic fungi of <i>Helianthus annus</i> L.	2000	Roshan Lal
17	Studies on microbial pesticides and their influence on pathogenic fungi associated with <i>Arachis hypogea</i> L.	2000	Vinay Kumar Sharma
18	Biocontrol of <i>Sclerotinia sclerotiorum</i> (Lib.) De Bary causing stem blight of <i>Brassica campestris</i> L	2001	Chandra Prakash Gupta
19	Influence of physiological stress conditions on certain rhizobia and their inoculant preparation	2001	Naveen Kumar Arora
20	Studies on root nodulating bacteria associated with <i>Mucuna pruriens</i> (Kaunch).	2001	Vineet Kumar
21	Biological control of <i>Macrophomina phaseolina</i> causing charcoal rot of ground nut (<i>Arachis hypogea</i> L.) through pseudomonads.	2002	Shweta Bhatia
22	Exopolysaccharide production: A mean to tolerate salinity by <i>Sinorhizobium meliloti</i> nodulating <i>Mucuna pruriens</i> (L).	2002	S. P. Paudyal (Co-guide)
23	Isolation, identification and characterization of siderophores producing rhizobia with special reference to biocontrol of root rot pathogen.	2002	Vishal Kumar Deshwal
24	Studies on the yield, breeding behaviour, nitrogen fixing ability and heavy metal resistance in induced mutants of <i>Vigna radiate</i> (L) wilczek.	2003	Udai Pal Singh
25	Evaluation of potential rhizobial strains against deleterious rhizospheric micoorganisms.	2004	Kishor Kumar Joshi
26	Impact of rhizobia and chemical nutrients status on productivity of	2004	Shikha Chandra

	nonleguminous crop (<i>Brassica campestris</i>) L. var. local		
27	Biocontrol potential of microbial consortium of <i>Macrophomina phaseolina</i> causing root rot of <i>Sesamum indicum</i> (L.).	2005	Bhavesh Kumar
28	Studies on rhizobacterial consortium for the biocontrol activity against deleterious microorganisms of <i>Brassica campestris</i> L var. local	2006	Keerti Gupta
29	Studies on potential rhizobia and their evaluation in biocontrol of <i>Macrophomina phaseolina</i> causing root rot of Pine (<i>Pinus roxburghii</i>).	2006	Neetu Singh
30	Rhizobacteria in biocontrol of <i>Heterodera cajani</i> infecting <i>Sesamum indicum</i> L.	2006	Tarun Kumar
31	Role of <i>Rhizobacteria</i> on Root-Knot of <i>Capsicum annum</i> L.	2007	Verinder Wahla
32	Effect of Biofertilizer and Integrated Nutrient management Protocol (N, P & K) on quality improvement of <i>Sesamum indicum</i> L.	2008	Sandeep Kumar
33	Effect of certain soil inhabiting microorganism in relation to <i>Fusarium</i> wilt and root knot	2008	Shilpi Sharma
34	Role of Rhizobacteria in Biocontrol and Growth promotion of <i>Cajanus cajan</i>	2008	Piyush Pandey
35	Isolation of stress tolerating rhizobia and their biocontrol potential against wilt of <i>Cajanus Cajan</i> L.	2010	Rajyavardhan Arya
36	Diversity of root nodulating bacteria in <i>Clitoria ternatea</i> L.	2011	Abhinav Aeron
37	Rhizobia and Fluorescent Pseudomonads in the growth promotion of <i>Macrotyloma uniflorum</i> L.	2011	Rajat Khillon
38	Studies of root nodulating bacteria associated with <i>Psoralea corylifolia</i> L.	2011	Chandra Prabha
39	Studies on bacterial biofilm formation associated with dental caries	2012	Vikas Chandra Garg
40	Studies on root nodulating bacteria in the management of certain soil borne fungal pathogens in <i>Crotolaria juncea</i> L. and <i>Psoralea corylifolia</i> L.	2012	Narendra Kumar Maheshwari
41	Isolation of marker bioactive components from certain plants against UTI causing microorganisms	2013	Lokesh Kumar Singh
42	Evaluation of bioefficacy of <i>Terminalia chebula</i> Retz. and <i>Glycyrrhiza glabra</i> Linn. against certain food borne microorganisms	2015	Aparajita Gupta
43	Studies on biofilm forming aerobic spore bearing bacterial genera in biocontrol of phytopathogenic fungi.	2016	Mohit Agarwal
44	Studies on Diversity of Plant Growth Promoting Bacilli from Garhwal Himalaya	2016	Shrivardhan Dheeman
45.	Assesment of antimicrobial potential of aerobic endospore forming bacilli isolated from termitarium soil (Submitted, 2016)		Ankit Kumar Chauhan

No. of students registered: 3

Gene sequences submitted:

- A total of 94 16S rRNA gene sequences have been deposited at National Centre for Biotechnology of Information (NCBI), USA of the following bacterial strains:
Bacillus (30), *Paenibacillus* (10), *Rhizobia* (20), *Pseudomonas* (18) and other genera (16)
(Annexure-I)

Technology Developed:

1. Four strains of *Rhizobia* in Microbial Type Culture Collection (MTCC) at Institute of Microbial Technology, Chandigarh.
2. Two strains of *Sinorhizobium* in Japan Collection of Microorganisms, Wako, Japan.

Patent Published: 2

1. A seed coating composition for managing pathogens and reducing application of fertilizer and preparation thereof, (Reference No. 1491/DEL/2009, date of filing 22.07.2009).
Inventor – D.K. Maheshwari, Department of Botany and Microbiology, G.K.V., Haridwar, Uttarakhand.
2. A bioinoculant consortium for enhancing the active content of medicinal plant and its method thereof (Reference Number. 2730/DEL/2009, date of filing 30.12.2009).
Inventors – D.K. Maheshwari and R.C. Dubey, Department of Botany and Microbiology, G.K.V. Haridwar, Uttarakhand.

Administrative Experience and Position Held:

- Served as Head, Department of Microbiology, Barkatulla University, Bhopal, from May 1986 to July 1988 for a period of 15 Months.
- Appointed as Head, Department of Botany and Microbiology, Gurukul Kangri University, Haridwar from 1991 to 1994, 1996 to 1998 and again from 2001 to 2004.
- Served as Dean Student Welfare since 1991 – 2000 June.
- Appointed as Dean, Faculty of Life Sciences, Gurukul Kangri University, Haridwar from 1994 to 1996, 1998 to 2001 and again from 2004 to 2007.
- Invited as reviewer in Brainstorming Meeting on Plant-Microbe Interaction jointly organized by Agarkar Research Institute, Pune and Department of Science and Technology, New Delhi during March 8-10, 2009.

- Invited as reviewer in Interactive Meeting on Plant-Microbe Interaction for North-East India jointly organized by Mysore University, Mysore, Karnataka and Department of Biotechnology, New Delhi during Oct 6-7, 2009.
- Nominated Member, Selection Committee in the programme on Science Communication, ISCA Kolkatta for local chapter Haridwar, 28-30th Sep. 2015.
- Appointed as Dean, Research and Academic Audit, Gurukul Kangri University, Haridwar w.e.f. 5th October 2015
- Nominated as resource person by NAAC, Bangalore in IQAC Seminar held at SGRR (PG) College, Dehradun on 9th & 10th October, 2015.
- Member Board of Studies of Dr. Ram Manohar Lohia Avadh University, Faizabad held on 18th August 2015
- Nominated as resource person by NAAC, Bangalore in IQAC Seminar held at SGRR (PG) College, Dehradun on 9th & 10th October, 2015.
- Acted Chairman of Pre-Screening committee Department of Chemistry, Gurukul Kangri University, on 20th May 2016
- Acted Chairman of Pre-Screening committee Department of Computer Science, Gurukul Kangri University, on 20th May 2016
- Acted as Convenor flying squad in University Exam 5th May 2016 to 18th May 2016.
- Acted as External Expert Member of IQAC, MJP Rohilkhand University, Bareilly w.e.f. 24th Sept. 2016 for two years.

Seminar Organised:

- Organising Secretary of the National Seminar on *Bioinoculants for Holistic Sustainable Rural Development*, organised jointly with Deen Dayal Upadhyay Institute for Rural development, U.P. Govt., Oct., 23-25, 1998.
- Co-ordinator of Workshop on Molecular and Applied Microbiology at Gurukul Kangri University, Sponsored by Uttarakhand state council for Science & Technology, Dehradun, Department of Science & Technology, 10th-19th Feb, 2008.
- Co-ordinator of Hands on Training on Microbial Fermentation & Inoculant Preparations at Gurukul Kangri University, Sponsored by State Biotechnology Programme, Government of Uttarakhand, (U.S. Nagar), 10th-19th Feb, 2008.

- Co-ordinator of Summer School on “Recent Trends in Biotechnology” at Gurukul Kangri University, Sponsored by State Biotechnology Programme, Government of Uttarakhand, (U.S. Nagar), 15th-30th Sept., 2008.
- Co-ordinator of Workshop on “Microbial Fermentation & Microbial Inoculant Preparations for Organic farming” at Gurukul Kangri University, Sponsored by Department of Science and Technology, New Delhi and State Biotechnology Programme, Government of Uttarakhand, (U.S. Nagar), 5th-10th Feb, 2009.
- Organised a two days workshop on “Science and Technology Intervention in Traditional and Rural Crafts” sponsored by UCOST Dehradun and DST, New Delhi, 27-28 August, 2009.
- Organized the “International Biodiversity Day” on 22.05.2010 sponsored by State Biodiversity Board, Uttarakhand and UCOST, Dehradun, Uttarakhand
- Organised a twelve days workshop on “Current Trends in Microbial Biotechnology” sponsored by State Biotech Programme, Pantnagar, Haldi, Uttarakhand (14-25th, Nov. 2010).

International Participation and Creative Achievements:

- Selected and participated under International training course program on “Selected topics on Modern Biology” at Biological Research Center of Hungarian Academy of Sciences, Szeged in 1983 – 1984 for a period of 11 Months.
- Invited to deliver seminar in the Department of Genetics, University of Gent (Belgium) in May 1984.
- Attended and presented a paper in 14th Chemotherapy Conference at Hajuszlo, Hungary in 1984.
- Participated in follow up program at Biological Research Center Hungarian Academy of Sciences, Szeged, for a period of three months in 1989.
- Nominated to visit Institute of Biochemistry, Biological Research Center under Bilateral Exchange Program between INSA-Hungarian Academy of Sciences for three weeks in 1989.
- Nominated to visit Institute of Microbiology, Czechoslovakia Academy of Sciences, Prague for two weeks under INSA - Bilateral Exchange Program in 1989.
- Selected to participate in INDO – Hungarian Cultural Exchange Program sponsored by University Grants Commission, New Delhi in 1990.
- Appointed as Senior Visiting Fellow at Department of Microbiology and Biotechnology, Kossuth Lajos University, Debrecen (Hungary), for two months in 1990.

- Invited to visit Institute of Microbiology, Czechoslovakian Academy of Sciences, Prague, in 1990.
- Participated in Federation of European Biochemical Society meeting (FEBS) held at Budapest, Hungary in 1990.
- Attended 6th International Symposium on Microbial Ecology, held at University of Barcelona, Spain in 1992.
- Invited to deliver lecture in the division of Pharmacology, Department of Microbiology, University of Barcelona, Spain in 1992.
- Appointed Visiting Professor, Department of Applied Biology, Science University of Tokyo, Noda, Japan, for two months in 1993.
- Appointed Guest Professor, Department of Microbiology, University of Ulm, Germany for one month in 1995.
- Nominated to visit Germany under INSA – DFG exchange program to visit Germany in 1995.
- Appointed Visiting Professor, Department of Applied Biology, Science University of Tokyo, Noda Japan, for two months in 1998.
- Visited South Korea for three months under International Collaboration and Exchange programme sponsored by Indian National Science Academy, New Delhi in 2000.
- Visited South Korea as visiting Professor, Daegu University, College of Biotechnology, Daegu, Kyongsan, 2001.
- Visited South Korea for three months under International Collaboration and Exchange programme sponsored by Indian National Science Academy, New Delhi in 2003.
- Delivered invited lecture in Annual conference of Society of Agricultural Chemistry & Biotechnology, held at Daegu University, Gyoungsan (April 25-26, 2003).
- Delivered invited lecture in National Institute of Agricultural Biotechnology, Suwon, Korea (June 10, 2003).
- Nominated to visit South Korea for two months under International collaboration and Exchange Programme sponsored by Indian National Science Academy, New Delhi in 2005-2006.
- Visited Department of Chemical Engineering and Biotechnology, Daegu University, Kyungsang, Daegu (Korea) for two months under International Collaborations and Exchange Programme, sponsored by Indian National Science Academy, New Delhi in 2006.
- Participated in 89th International Symposium of the KSABC on April 21, 2006 at Chonnam National University, Gwangju, Korea.

- Nominated to visit South Korea for three weeks under INSA - Bilateral Exchange Program in October, 2010.
- Delivered invited lecture on Plant Growth and Health supporting bacteria in Department of Biotechnology, College of Engineering, Deagu Univeristy, Republic of Korea, (Oct. 19, 2010).
- Delivered invited lecture in the Department of Agricultural Chemistry, Chungbuk National Universtiy, Cheongju (Oct. 19, 2010).
- Invited to deliver lecture in Institute of Plant Protection, Agricultural Research Organization, Ministry of Agriculture & Rural Development, The Volcani Centre, Israel, during Feb, 2014.
- Delivered invited lecture on "Bio control research in India: Success stories, Hurdles and Future" in Indo-German workshop in IARI, New Delhi during April 07-09, 2014.
- Invited to deliver lecture in 4th Asian PGPR conference in Hanoi Vietnam from May 3-6, 2015.

International Symposium:

1. Impact of inorganic fertilizer on survivability of *Rhizobium* spp and their effect on *Brassica campestris*. International Symposium, Daegu University. 25-26 April, 2003, Daegu, South Korea.
2. Nitrate and nitrite reductases, nitrogenase and hydrogenase of *Rhizobium loti* MTCC 2379 and MTCC 2381 nodulating *Acacia* species. International Symposium, Daegu University. 25-26 April, 2003, Daegu, South Korea.
3. Use of solid carriers for the bioformulation of fluorescent pseudomonads. International Symposium and Annual Meeting of the KSABC "Functional Genomics for Agro-Biotechnology", 23-24 October, 2003, Icheon, South Korea.
4. Fluorescent pseudomonads cause antagonism against *Macrophomina phaseolina* causing charcoal rot of groundnut. Annual Meeting, BioExhibition & International Symposium of KMB "Microbial Functional Genomics & Its Application". 24-26 June, 2003, Muju, South Korea.
5. Effect of solid carriers on bioformulation with special reference to Fluorescent pseudomonads. Annual Meeting, BioExhibition & International Symposium of KMB "Microbial Functional Genomics & Its Application". 24-26 June, 2003, Muju, South Korea.
6. "Current Prospects of Rhizobial Research". International Symposium at Daegu University. 25-26 April, 2003, Daegu, South Korea
7. Effect of chemical fertilizer adaptive variants *Pseudomonas aeruginosa* GRC2 and *Azotobacter chroococcum* AC1 on *Macrophomina phaseolina* causing charcoal rot of *Brassica juncea*. The 89th International Symposium of the KSABC. "Development and Applications of Bioactive Materials". 21 April, 2006, Gwangju, South Korea.

8. Purification of antibiotic like substance against *Staphylococcus* spp. produced by the novel isolate, *Bacillus subtilis* BN1. International Symposium and Annual Meeting of the KSABC “Plant Stress and Metabolism”. 11-13 October, 2007, Gyeongju, South Korea.
9. Molecular characterization by 16S rRNA gene sequencing of novel *Bacillus* spp. strains and their anti-staphylococcus activities. International Symposium. 20 April, 2007, Gyeongju, South Korea.
10. Beneficial effects of fluorescent Pseudomonads on seed germination, growth promotion and suppression of charcoal rot in ground nut (*Arachis hypogaea* L.) International Symposium of “The Korean Society of Agriculture and Environment”. 5-6 July, 2007. Kyeonju, South Korea.
11. 16S rRNA gene analysis of novel *Pseudomonas aeruginosa* TK8 and purification of its anti-staphylococcal and anti-pseudomonal secondary metabolites. “International Symposium of Konkuk University”, 16 May, 2008. Seoul, South Korea.
12. Molecular characterization of novel *Staphylococcus epidermis* LPT3 by 16SrRNA gene analysis and its potential anti-staphylococcus and anti-pseudomonal activities. International Symposium and Annual Meeting of the KSABC “New Era of Applied Biological Chemistry”. 23-25 October, 2008, Daegu, South Korea.
13. Biological control of *Macrophomina phaseolina* by chemotactic fluorescent *Pseudomonas aeruginosa* PN1 and its plant growth promontory activity in chir-pine. International Symposium for Improvement of Agro-Food Safety and Annual Meeting “The Korean Society of Environmental Agriculture”. 8-9 July, 2009, Seoul, South Korea.
14. Biological control of *Fusarium oxysporum* f. sp. sesame by fluorescent *Pseudomonas* LES4 and its plant growth promontory activity. International Symposium for Improvement of Agro-Food Safety and Annual Meeting “The Korean Society of Environmental Agriculture”. 8-9 July, 2009, Seoul, South Korea.
15. Wilt disease management by bacterial consortia amended with chemical fertilizer on enhancement of growth and yield of *Cajanus cajan* (L) var. Manak. International Symposium for Improvement of Agro-Food Safety and Annual Meeting “The Korean Society of Environmental Agriculture”. 8-9 July, 2009, Seoul, South Korea.

President/Secretary of professional societies

- President- Plant Sciences, Indian Science Congress- 2015-2016

NAAC Participation in NAAC meetings:

- Nominated as Member Co-ordinator of NAAC peer team by National Assessment and Accreditation Council, Bangalore for assessing various Universities and Colleges.

Awards/Special recognitions:

- Awarded Young Scientist Y. S. Murty Medal of Indian Botanical Society for outstanding scientific contribution, in 1992.
- Nominated as Member “Biodiversity Board” from Uttarakhand Council for Science and Technology, Govt. of India, Dehradun, 2006.
- Appointed as District Co-ordinator of Haridwar, by UCOST Dehradun, 2007.
- Nominated as Convenor “Science forum” from Uttarakhand Council for Science and Technology, Govt. of India, Dehradun, 2007
- Delivered Platinum Jubilee Lecture on “Emerging role of Plant Growth Promoting Rhizobacteria (PGPR) in suppression of phytopathogens”. 99th Indian Science Congress, 3rd to 7th January, 2012. KIIT University.

Fellowships and Member of Professional Societies:

- Awardee of Post-Doctoral Fellowship, sponsored by C.S.I.R., New Delhi.
- Fellow, Indian Botanical Society
- Fellow, Indian Phytopathological Society
- Life Member, Indian Botanical Society
- Life Member, Microbiological Society of India
- Life Member, Indian Science Congress
- Life Member, Society of Advances in Science
- Nominated Member, New York Academy of Sciences
- Vice – President, Indian Botanical Society in 1997 – 1998
- Editor, Journal of Indian Botanical Society w. e. f. 2000-2003
- Member, Editorial Board, Korean J. Agric Chem. and Biotechnology
- Former Member, Editorial Board, Indian Phytopathology
- Member, Editorial Board, Journal of Applied Biological Chemistry
- Member Advisory Board Journal of Applied & Natural Sciences

- Member, Editorial Advisory Board Everyman's Science, ISCA 2015-2016
- Sectional Editor, Journal of Indian Botanical Society w. e. f. 2015

Books, monographs etc. published:

1. Elementary Microbiology (for undergraduate students), Nem Chand & Bros., Roorkee, 1981.
2. Microbes: Agriculture, Industry and Environment, Bishen Singh, M.P. Singh Publ., Dehradun, 2001.
3. Innovative Approaches in Microbiology, Bishen Singh, M.P. Singh Publ., Dehradun, 2001.
4. Practical Microbiology, (eds. Dubey, R.C., Maheshwari, D.K.), Publ.- S. Chand & Co., New Delhi, First edition, 2002, Second edition, 2006, Third edition, 2012.
5. Biotechnological Applications of Microorganisms, A Techno-Commercial Approach. (eds. Dubey, R.C., Maheshwari, D.K. and Kang, S.C.) I. K. International Pvt. Ltd., New Delhi, 2006.
6. Potential microorganisms for sustainable Agriculture. (eds. Dubey, R.C. and Maheshwari, D. K. and Sarwanamuthu, R.) I.K. International Publ. House P Ltd, New Delhi, 2008.
7. Industrial Exploitation of Microorganisms. (eds. Maheshwari, D. K., Dubey, R. C. and Saravanamurthu, R.) I. K. International Publ. House P Ltd, New Delhi, ISBN: 978-9380026534, 2010.
8. A text book of Microbiology, (eds. Dubey, R. C. and Maheshwari, D. K.), Publ.- S. Chand & Co., New Delhi, First edition 1999; Second edition 2006, Third edition 2010.
9. Microbiology Monographs (V-18). Plant Growth and Health Promoting Bacteria, (ed. Maheshwari, D. K.), Springer-Verlag, Heidelberg, Germany, ISBN: 978-3-642-13611-5, 2010.
10. Bacteria in Agrobiolgy: Crop Ecosystem, (ed. Maheshwari, D. K.), Springer, Heidelberg, Germany, ISBN 978-3-642-18357-7, 2011.
11. Bacteria in Agrobiolgy: Plant Growth Responses, (ed. Maheshwari, D. K.), Springer, Heidelberg, Germany, ISBN 978-3-642-20332-9, 2011.
12. Bacteria in Agrobiolgy: Plant Nutrient Management, (ed. Maheshwari, D. K.), Springer, Heidelberg, Germany, ISBN 978-3-642-21061-7, 2011.
13. Bioremediation of Pollutants (eds. Dubey, R. C. and Maheshwari, D. K.) I.K International Publ. House P Ltd, New Delhi, ISBN: 9789381141052, 2012.
14. Bacteria in Agrobiolgy: Stress Management, (ed. Maheshwari, D. K.), Springer, Heidelberg, Germany, ISBN 978-3-642-23465-1, 2012.
15. Bacteria in Agrobiolgy: Plant Probiotics, (ed. Maheshwari, D. K.), Springer, Heidelberg, Germany, ISBN 978-3-642-27515-9, 2012.

16. Bacteria in Agrobiolgy: Disease Management, (ed. Maheshwari, D. K.), Springer, Heidelberg, Germany, ISBN 978-3-642-33639-3, 2013.
17. Bacteria in Agrobiolgy: Crop Productivity, (eds. Maheshwari, D. K., Saraf, M. and Aeron, A.), Springer, Heidelberg, Germany, ISBN 978-3-642-37240-7, 2013.
18. Bacterial Diversity in Sustainable Agriculture, (ed. Maheshwari, D. K.) Springer, Gewerbestrasse, Switzerland, ISBN 978-3-319-05935-8, 2014.
19. Composting for Sustainable Agriculture, (ed. Maheshwari, D. K.), Springer, Gewerbestrasse, Switzerland, ISBN 978-3-319-08003-1, 2014.
20. Halophiles- Biodiversity and Sustainable Exploitation, (eds. Maheshwari, D. K. and Saraf, M.), Springer, Gewerbestrasse, Switzerland, ISBN 978-3-319-14594-5, 2015.
21. Bacterial Metabolites in Sustainable Agroecosystem, (ed. Maheshwari, D. K.), Springer, Gewerbestrasse, Switzerland, ISBN 978-3-319-24652-9, 2015.
22. Endophytes: Biology and Biotechnology - Vol I, (ed. Maheshwari, D. K.), Springer International publishing, Gewerbestrasse, Switzerland, (IN PRESS)
23. Endophytes: Crop productivity and Protection - Vol II, (ed. Maheshwari, D. K.), Springer International publishing, Gewerbestrasse, Switzerland, (IN PRESS)

Publications:

1. Pathak, P. D. and **Maheshwari, D. K.** Deterioration of seeds of *Cajanus cajan* by *Aspergilli* in storage.. *B.V.J. Ag. & Sci.* XVI, 97 – 100, 1976.
2. Chaturvedi, S. N. and **Maheshwari, D. K.** Qualitative Changes in amino acid contents of hypertrophied flowers in *Crataeva religiosa* Frost due to insect *Aschistonyx crataevae*.. *Agra Univ. J. Res.* 2: 57 – 60, 1978.
3. Tayal, M. S., **Maheshwari, D. K.** and Goel, A. K. Effect of healthy and diseased plant tissue extract of coriander on germination of radical growth on moong bean (*Phaseolus aureus* Roxb.). *Ind. J. Bot.* 43: 194 – 196, 1979.
4. Chaturvedi, S. N. and **Maheshwari, D. K.** Qualitative Changes in amino acid contents of root knot of Brinjal (*Solanum melongena* L.) due to nematode, *Meloidogyne javanica*.. *Agra Univ. J. Res. Sci.* XXVIII, 147 – 150, 1979.
5. **Maheshwari, D. K.** and Chaturvedi, S. N. Histopathological and histochemical studies in some plant galls. *Int. Cecid. Newslett.* 4, 1979.
6. **Maheshwari, D. K.** and Chaturvedi, S. N. Histochemical localization of total proteins during the development of sex organs in *Albugo candida* Kunge. *Ind. J. Microbiol.* 18: 250, 1979. **IF: 0.832**

7. Chaturvedi, S. N. and **Maheshwari, D. K.** Variations in amino acid contents by *Eriophyes* spp. in leaves of *Salvaradora persica* L. *Agra Univ. J. Res. Sci.* XXVIII, 31 – 34, 1979.
8. **Maheshwari, D. K.** and Chaturvedi, S. N. Localization of insoluble polysaccharides and acid phosphatase in root knot galls of *Solanum.melongena* due to *Meloidogyne incognita*. *J. Ind. Bot. Soc.* 47 – 49, 1979.
9. Chaturvedi, S. N. and **Maheshwari, D. K.** Histopathological studies of the root knot galls of *Solanum melongena* L.. *J. Ind. Bot. Soc.* 61 – 63, 1979.
10. **Maheshwari, D. K.** and Chaturvedi, S. N. Histochemical localization of DNA and histones in the hypertrophied parts of *Coriandrum sativum* L. due to stem gall disease. *Ind Phytopath.* 54: 488 – 491, 1981.
11. Chaturvedi, S. N. and **Maheshwari, D. K.** Estimation of variations in surface wax induced by *Pipaldiplosis pipaldiplosis* Mani in the leaves of *Ficus religiosa* L.. *J. Ind. Bot. Soc.* 60: 65 – 68, 1981.
12. Tayal, M. S., Kumar, S., Goel, A. K. and **Maheshwari, D. K.** Role of IAA, IAA oxidase, O-dihydroxyphenols, polyphenol oxidase and peroxidase in stem gall disease of *Coriandrum sativum*. *Curr. Sci.* 50: 785 – 786, 1981. **IF: 0.936**
13. **Maheshwari, D. K.**, Chaturvedi, S. N and Sharma, Y. K. Biochemical alterations in *Coriandrum sativum* L. due to *Hydraphis coriandri*. *Phytopath. Medit.* 21: 91 – 93, 1981.
14. **Maheshwari, D. K.** and Chaturvedi, S. N. Histochemical studies of *Albugo* galls of *Brassica juncea* Coss. and Czern. *Ind. Phytopath.* 38: 263 – 266, 1983.
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Details of research grant received from different funding agencies:

S. No.	Name of the Principal investigator	Title of the project	Amount sanctioned (Rs)	Funding agency	Year
1.	D. K. Maheshwari	Effect of organocarbamate and phytohormones on the nodule formations in some pulse crops with special reference to gall formation.	3,00,500/-	UGC	1987-90
2.	D. K. Maheshwari	Physiological and genetical analysis of heavy metals resistance in free-living nematode, <i>Caenorhabditis elegans</i> .	4,10,000/-	CSIR	1987-90
3.	D. K. Maheshwari	Identification, screening of aquatic biomass residue for energy generation and to increase biomass production.	5,55,000/-	MNES	1992-95
4.	D.K. Maheshwari	Bioconversion of cellulosic residues into microbial protein by some lignocellulosic fungi and possibility of involvement of N ₂ fixing bacteria.	5,15,500/-	UGC	1995-98
5.	D.K. Maheshwari	Biopesticidal control of certain tropical diseases associated with oilseed crops.	15,00,000/-	CSIR	1995-98
6.	D.K. Maheshwari	Occurrence, identification and screening of aquatic macrophytes for energy generation and through biomass production of some fuel wood species in substandard soil.	2,30,362/-	CS&T (UP)	1996-99
7.	D.K. Maheshwari	Mass production and application of biopesticides to control bacterial infection associated with oil seeds.	29,89,000/-	CSIR	1998-02
8.	D.K. Maheshwari	Field trials for integrated nutrient management protocol (NPK & S and <i>Pseudomonas</i> rhizobacteria) for optimization of yield and quality of rapeseed mustard.	23,00,000/-	CSIR	2001-03
9.	D.K. Maheshwari	Integrated nutrient management (N, P, K & B and <i>Pseudomonas</i>), Nitrogen fixing bacteria for optimisation of yield and quality of sesame (<i>Sesamum indicum</i>) under field trials.	17,00,000/-	CSIR	2003-06
10.	D.K. Maheshwari	Role of microbial consortium and N, P, K & S on control of fusarial wilt in <i>Cajanus cajan</i> and <i>Cicer arietinum</i> and improvement of protein quality and yield.	16,00,000/-	CSIR	2004-06
11.	D.K.	Role of Plant growth promoting	9,00,000/-	UCOST	2006-09

	Maheshwari	Rhizobacteria in enhancement of productivity of certain medicinal plants of Uttaranchal.		(UK)	
12.	D.K. Maheshwari	Isolation, Identification, characterization of some Rhizobia and their evaluation in the management of soil borne Plant Pathogens.	10,12,800/-	UGC,	2008-11
13.	D.K. Maheshwari	Diversity of Rhizobial Population associated with certain crop legumes cultivated at high altitudes in Himalaya, Uttarakhand.	15,72,000/-	CSIR	2008-11
14.	D.K. Maheshwari	UGC BSR One time Grant	7,00,000/-	UGC	2012-13
15.	D.K. Maheshwari	Isolation, Identification, Characterization of spore forming PGPR (<i>Bacillus</i> and <i>Paenibacillus</i>) from Himalayan soil and their application in Agricultural Crop	7,18,800/-	UCOST	2012-14

Outstanding Contribution as Subject Expert:

1. Participated in workshop on Jal Sanrakshan and Pravandhan on 23.11.2007 at Dev Sanskriti Vishwavidyalaya, Shantikunj, Haridwar.
2. Appointed as expert member in meeting of Research Council of Madhya Pradesh Bhoj (Open) University, Bhopal, India on 10.02.2009.
3. Reviewer of project of the Central Sericultural Research and Training Institute, for the period 2008-2009, Sri Rampura, Manandavadi Road, Mysore-570008, Central Silk Board, Govt. of India.
4. Appointed as member, Advisory Committee, UGC-SAP-DRS, Phase-II programme for the period 2009-2010 sanctioned to North Maharashtra University, Jalgaon- 425001
5. Appointed as member of BOS in Botany, THE IIS University, Jaipur for the period 2008-2009.
6. Appointed as expert member in meeting of Board of Study of Genetics in Barkatullah University, Bhopal India on 10.02.2009.
7. Nominated as members in Meeting of Research Council of the University (04.09.2009) by Vice Chancellor, Madhya Pradesh Bhoj (Open) University, Bhopal (MP).
8. Invited as expert to coordinate the session during conference in 4th Uttarakhand State Science and Technology Congress-2009 from 10-12 November, 2009 at GB Pant University of Agriculture and Technology, Pantnagar (UK).
9. Appointed as member in Reception Committee of Viswa Ved Sammelanam at Gurukul Kangri University, Haridwar, India (20.11.2009-22.11.2009).

10. Appointed as expert member in meeting of Board of Study in Botany at International College for Girls (Autonomous) India for two years (12.12.2009).
11. Invited as expert to chair the session during conference in 32nd Annual Botanical Conference at Kuvempu University, Shankaraghatta on 28-30th Dec. 2009.
12. Delivered an invited lecture on "Bacteria and Plant Health Management" at XXXII All India Botanical Conference and International Symposium on "Diversity of Plants and Microbes: Present Scenario" organized by Kuvempu University, Shankaraghatta-577451, Shimoga, Karnataka and IBS, Jaipur-302004, Rajasthan from December, 28-30, 2009
13. Appointed as Subject expert of Selection committee of lecturer in Microbiology in Maharshi Dayanand University, Rohtak-124001, Haryana, India on 03.01.2010-04.01.2010.
14. Appointed as President of Committee for Wi-Fi at Gurukul Kangri University, Haridwar, India (26.05.2010).
15. Appointed as member of coordination Committee in 5th Uttarakhand State Science and Technology Congress-2010 from 10-12 November, 2010 at Doon University, Dehradun (UK).
16. Invited to attend the 33rd Annual Botanical Conference at Shivaji University, Kolhapur from 10-12 Nov. 2010.
17. Appointed as Expert in the panel of Selection Committee held on 15.12.2010 by VC, HNB Garhwal University, Srinagar-Garhwal-246174, Uttarakhand.
18. Appointed as a Chair Person in Environmental Management and technology section, technical session IV during WCMANU -2011 Held at Department of Zoology And Environmental Science, Gurukul Kangri University, Haridwar, Uttarakhand, India.
19. Appointed as Chairman of Committee for Wi-Fi at Gurukul Kangri University, Haridwar, India (24.03.2012).
20. Member Conference Advisory Committee School of Life Sciences University of Hyderabad. Hyderabad AP.
21. Subject Expert for Approval at Kuntinaman Institute of Pharma Technology and Science. Appointed by Hemwati Nandan Bahuguna University
22. Member Selection Committee University of Jammu, Rajasthan University and Assam University Silchar.
23. Member Board of Studies DDU Gorakhpur University.
24. Expert member 6th U-COST Science and Technology Congress held at Almora Campus of Kumaun University, Nainital.
25. Member Board of Studies in Botany, MGS University, Bikaner.

26. Member Advisory Committee for UGC-SAP-DRS Phase II Programme, North Maharashtra University, Jalgaon (2010-2013).
27. Member Advisory Committee for UGC-DRS Programme, Department of Botany, Kumaun University, Nainital (2012-2015).
28. Delivered a invited lecture on “Role Of Plant Growth And Health Promoting Rhizobacteria In Present Scenario” in the Department of Microbiology and Biotechnology, St. Thomas College, Bhillai on 10-11th Oct 2012.
29. Participated in 7th Uttarakhand State Science & Technology Congress (USSTC) held at Dehradun on 21-23rd Nov. 2012.
30. Member, Subject Expert, Board of Studies of PG in Microbiology, Central University of Rajasthan, Kishangarh 2012-13.
31. Invited to deliver “Prof. H. S. Srivastava Memorial Lecture 2013” in Plant Science Department, M.J.P. Rohilkhand University, Bareilly on 31st Jan. 2014.
32. Delivered invited lecture in NAAC/IQAC three days workshop at M.J.P. Rohilkhand University, Bareilly on 31st Jan. 2014.
33. Chaired Women Scientist award session at XXXVIII All India Botanical Conference and National Symposium on “Biodiversity and climate change” organized by KET’s V.G. Vaze College, Mulund (East) Mumbai from Nov. 7-9, 2014.
34. Invited to deliver lecture in National workshop on “Advances in PGPR Research” held at Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, organized by Department of Mycology and Plant Pathology, Banaras Hindu University, Varanasi and Asian PGPR Society, Hyderabad on Oct 7-8, 2014.
35. Nominated as expert member of Knowledge Management Systems Committee on Herbal Technologies of the Corporation held at NRDC, New Delhi on 10th Dec, 2014.
36. Chaired Young Scientist Award session (Plant Sciences section) at 102nd Indian Science Congress organized by University of Mumbai, Mumbai held on Jan 3-7, 2015.
37. Delivered invited lecture in Plant Sciences section at 102nd Indian Science Congress organized by University of Mumbai, Mumbai held on Jan 3-7, 2015.
38. Delivered Presidential Address in Plant Sciences section at 103rd Indian Science Congress organized by University of Mysure, Mysuru held on Jan 3-7, 2016.
39. Delivered invited talk in National conference on microbial biotechnology clustering research and industrial demand from Feb 20-21, 2016 at Department of Microbiology and Biotechnology, School of Science, Gujarat University, Ahamadabad.

40. Acted expert in committee of Affiliation extension for DAV Degree College Roorkee and Chinmiya Degree College, Haridwar affiliated with HNB Garhwal University, Srinagar
41. External expert of RDC meeting in Choudhary Charan Singh University, Meerut
42. External expert of RDC meeting of Plant Science in Mahatama Jyotibaphule Rohilkhand University, Bareilly dated 23.7.2016

List of GenBank (NCBI) accession numbers for nucleotide sequences of PGPR strains

Bacillus	
<i>Bacillus</i> sp MUR8	HQ415809
<i>Bacillus pumilus</i> MUR4	HQ415805
<i>Bacillus subtilis</i> MUR2	HQ415803
<i>Bacillus</i> sp MUR11	HQ415814
<i>Bacillus pumilus</i> MUR5	HQ415806
<i>Bacillus subtilis</i> MUR3	HQ415804
<i>Bacillus</i> sp MUR1	HQ415802
<i>Bacillus</i> sp. BSK7	GU057901
<i>Bacillus subtilis</i> sp. BSK4	GU057899
<i>Bacillus subtilis</i> sp. BSK2	GU057897
<i>Bacillus subtilis</i> sp. BSK17	GU057902
<i>Bacillus subtilis</i> sp. BSK6	GU057900
<i>Bacillus subtilis</i> sp. BSK3	GU057898
<i>Bacillus</i> sp. MUR15	HQ230309
<i>Bacillus subtilis</i> strain BPR7	JN208240
<i>Bacillus</i> sp. MUR14	HQ415817
<i>Bacillus subtilis</i> BN1	DQ383271
<i>Bacillus pumilus</i> MSUA3	KC921204
<i>Bacillus subtilis</i> MSUE2	KC921207
<i>Bacillus cereus</i> MSUA9	KC921205
<i>Bacillus cereus</i> MSUB7	KC921206
<i>Bacillus pumilus</i> MSTA8	KT379991
<i>B. amyloliquifaciens</i> MSTD26	KT379992
<i>Bacillus subtilis</i> MSPC3	KU848184
<i>Bacillus seifensis</i> MSPE18	KU848185
<i>Bacillus cereus</i> BS14	KU991962
<i>Bacillus endophyticus</i> TSH42	KU991961
<i>Bacillus cereus</i> TSH77	KU991961

Paenibacillus	
<i>Paenibacillus</i> sp MUR13	HQ415816
<i>Paenibacillus</i> sp MUR9	HQ415811
<i>Paenibacillus</i> sp MUR10	HQ415812
<i>Paenibacillus</i> sp MRK11	HQ415808
<i>Paenibacillus polymyxa</i> MRG8	HQ415807
<i>Paenibacillus polymyxa</i> MRG4	HQ415815
<i>Paenibacillus Polymyxa</i> BSK1	GU057896
<i>Paenibacillus polymyxa</i> RCP6	GU369972
<i>Paenibacillus polymyxa</i> MSUC1	KP280052
<i>Paenibacillus jamilae</i> MSUC2	KP280053

Pseudomonas	
<i>Pseudomonas aeruginosa</i> MUP1	HQ415818
<i>Pseudomonas fluorescens</i> LPK2	GQ217532
<i>Pseudomonas alcaliphila</i> RCT11	HM805114
<i>Pseudomonas aeruginosa</i> LPT5	HQ123430
<i>Pseudomonas aeruginosa</i> LES4	HQ123431
<i>Pseudomonas fluorescens</i> MPF29	AB621593
<i>Pseudomonas fluorescens</i> MPF18	AB621591
<i>Pseudomonas fluorescens</i> MPF25	AB621592
<i>Pseudomonas fluorescens</i> PRS3	AB666552
<i>Pseudomonas fluorescens</i> PRS4	AB666551
<i>Pseudomonas fluorescens</i> FPG3	AB632370
<i>Pseudomonas fluorescens</i> FPK5	AB632371
<i>Pseudomonas fluorescens</i> MPF7	AB602853
<i>Pseudomonas fluorescens</i> MPF3	AB602399
<i>Pseudomonas geniculata</i> RCT2	HM805109
<i>Pseudomonas aeruginosa</i> VP1	EF157824
<i>Pseudomonas aeruginosa</i> VP2	EF157823
<i>Pseudomonas aeruginosa</i> LPT3	DQ683361

Stenotrophomas	
<i>Stenotrophomas maltophila</i> RCT30	HM805115
<i>Stenotrophomas maltophila</i> RCT31	HM771691
<i>S. maltophila</i> RMC6	HM771694

Serratia	
<i>Serratia marcescens</i>	AB614497

Acidovorax	
<i>Acidovorax valerianellae</i> CCR1	JQ424872

Sinorhizobium	
<i>Sinorhizobium meliloti</i> RMP66	AB665549
<i>Sinorhizobium meliloti</i> RHT2	GU474519
<i>Sinorhizobium meliloti</i> PCC7	JN546145
<i>Sinorhizobium meliloti</i> PRG3	AB610483
<i>Sinorhizobium meliloti</i> PRK1	AB610484
<i>Sinorhizobium meliloti</i> MRK10	Ab572351
<i>Sinorhizobium indiaense</i>	AB015420
<i>Sinorhizobium abrii</i>	AB015421
<i>Sinorhizobium fredii</i> KCC5	GQ169037
<i>Sinorhizobium fredii</i> SSR1	JQ424873

Rhizobium	
<i>Rhizobium leguminosarum</i> MRG6	AB569639
<i>Rhizobium leguminosarum</i> PCC2	JN546144
<i>Rhizobium leguminosarum</i> PVR3	AB608021

Mesorhizobium	
<i>Mesorhizobium loti</i> PVR9	AB608022

Bradyrhizobium	
<i>Bradyrhizobium</i> sp BMP17	AB665550
<i>Bradyrhizobium japonicum</i>	AB614498

Sphingobacterium	
<i>Sphingobacterium thalophilum</i> RCT1	HM771694

Bacterium	
<i>Bacterium</i> MRG2	HQ415801
<i>Bacterium</i> MRK7	HQ415810
<i>Bacterium</i> MRG7	HQ415813

Methylobacterium	
<i>Methylobacterium</i> sp. RK-2008-1	AB617527

Azotobacter	
<i>Azotobacter chroococcum</i> AZO2	EU274299

Achromobacter	
<i>Achromobacter xylosoxidans</i> RCT3	HM771692
<i>Achromobacter xylosoxidans</i> RCT4	HM805110
<i>Achromobacter xylosoxidans</i> RCT7	HM805111

Burkholderia	
<i>Burkholderia</i> MSSP sp.	AY551271

Enterobacter/Enterococcus	
<i>Enterobacter turicensis</i> RCT5	HM805112
<i>Enterobacter cloacae</i> RCT8	HM805113
<i>Enterobacter hormaechei</i> RCT10	HM771693
<i>Enterococcus</i> sp. MRG13	HQ415819
<i>Enterococcus faecium</i> BS13	KU991961

Index for bacterial sequences deposited in NCBI

S.No	GenBank Accession No.	Authors	Title	Year	Title
1	KT379991	Dheeman,S., Agarwal,M. and Maheshwari,D.K.	<i>Bacillus pumilus</i> strain MSTA8 16S ribosomal RNA gene, partial sequence.	2016	Isolation and characterization of plant growth promoting Bacilli from the rhizospheric soil of Himalayan region
2	KT379992	Dheeman,S., Agarwal,M. and Maheshwari,D.K.	<i>Bacillus</i> <i>amyloliquefaciens</i> strain MSTD26 16S ribosomal RNA gene,partial sequence.	2016	Isolation and characterization of plant growth promoting Bacilli from the rhizospheric soil of Himalayan region
3	KT379993	Chauhan,A.K. and Maheshwari,D.K	<i>Bacillus endophyticus</i> strain TSH42 16S ribosomal RNA gene, partial sequence.	2016	Assessment of antimicrobial potential of aerobic endospore forming bacilli isolated from termitarium soil
4	KT379994	Chauhan,A.K. and Maheshwari,D.K	<i>Bacillus cereus</i> strain TSH77 16S ribosomal RNA gene, partial sequence	2016	Assessment of antimicrobial potential of aerobic endospore forming bacilli isolated from termitarium soil
5	KT379995	Pandey,C., Negi,Y.K. and Maheshwari,D.K.	<i>Bacillus pumilus</i> strain BS27 16S ribosomal RNA gene, partial sequence	2016	Biocontrol potential of cold tolerant bacilli against <i>Amaranthus hypochondriacus</i>
6	KT379996	Pandey,C., Negi,Y.K. and	<i>Bacillus subtilis</i> strain BS58 16S ribosomal	2016	Biocontrol potential of cold tolerant bacilli against

		Maheshwari,D.K.	RNA gene, partial sequence		<i>Amaranthus hypochondriacus</i>
7	KU991962	Kumar, S., Dubey R.C.,Maheshwari, D.K., Dheeman, S.	<i>Enterococcus faecium</i> strain BS13 16S ribosomal RNA gene, Partial sequence.	2016	Isolation of Rhizobacteria from <i>Vigna mungo</i> L.
8	KU991961	Kumar, S., Dubey R.C.,Maheshwari, D.K., Dheeman, S.	<i>Bacillus cereus</i> strain BS14 16S ribosomal RNA gene, Partial sequence.	2016	Isolation of Rhizobacteria from <i>Vigna mungo</i> L.
9	KU848184	Dheeman,S., Agarwal,M. and Maheshwari,D.K	<i>Bacillus subtilis</i> strain MSPC3 16S ribosomal RNA gene,partial sequence	2016	Isolation and characterization of plant growth promoting Bacilli from the rhizospheric soil of Himalayan region
10	KU848185	Dheeman,S., Agarwal,M. and Maheshwari,D.K.	<i>Bacillus sefensis</i> strain MSPE18 16S ribosomal RNA gene,partial sequence.	2016	Isolation and characterization of plant growth promoting Bacilli from the rhizospheric soil of Himalayan region
11	KP280052	Maheshwari,D.K., Dheeman,S. and Agarwal,M.	<i>Paenibacillus polymyxa</i> strain MSUC1 16S ribosomal RNA gene, partial sequence	2015	Isolation and characterization of plant growth promoting Bacilli from the rhizospheric soil of Himalayan region
12	KP280053	Maheshwari,D.K., Dheeman,S. and Agarwal,M.	<i>Paenibacillus jamilae</i> strain MSUC2 16S ribosomal RNA gene, partial sequence	2015	Isolation and characterization of plant growth promoting Bacilli from the rhizospheric soil of Himalayan region
13	KC921204	Maheshwari, D.K. and Agarwal, M.	<i>Bacillus pumilus</i> strain MSUA3 16S ribosomal	2013	Isolation and characterization of plant growth promoting bacilli

			RNA gene, partial sequence.		from the rhizospheric soil of Himalayan region
14	KC921205	Maheshwari, D.K. and Agarwal, M.	<i>Bacillus cereus</i> strain MSUA9 16S ribosomal RNA gene, partial sequence.	2013	Isolation and characterization of plant growth promoting bacilli from the rhizospheric soil of Himalayan region
15	KC921206	Maheshwari, D.K. and Dheeman, S.	<i>Bacillus cereus</i> strain MSUB7 16S ribosomal RNA gene, partial sequence.	2013	Isolation and characterization of plant growth promoting bacilli from the rhizospheric soil of Himalayan region
16	KC921207	Maheshwari, D.K. and Dheeman, S.	<i>Bacillus subtilis</i> strain MSUE2 16S ribosomal RNA gene, partial sequence.	2013	Isolation and characterization of plant growth promoting bacilli from the rhizospheric soil of Himalayan region
17	JQ424872	Arya, R., Aeron, A., Maheshwari, N.K., Bajpai, V.K. and Maheshwari, D.K.	<i>Acidovorax valerianellae</i> strain CCR1 16S ribosomal RNA gene, partial sequence.	2012	Enhanced yield and growth of pigeon pea by inoculation with a non nodulating <i>Acidovorax valerianellae</i> CCR1 and a rhizobial strain <i>Sinorhizobium fredii</i> SSR1
18	JQ424873	Arya, R., Aeron, A., Maheshwari, N.K., Bajpai, V.K. and Maheshwari, D.K.	<i>Sinorhizobium fredii</i> strain SSR1 16S ribosomal RNA gene, partial sequence.	2012	Enhanced yield and growth of pigeon pea by inoculation with a non nodulating <i>Acidovorax valerianellae</i> CCR1 and a rhizobial strain <i>Sinorhizobium fredii</i> SSR1
19	JN208240	Kumar, P., Dubey, R.C. and Maheshwari, D.K.	<i>Bacillus subtilis</i> strain BPR7 16S ribosomal RNA gene, partial sequence.	2011	Bacillus strains isolated from rhizosphere showed plant growth promoting and antagonistic activity against phytopathogens
20	AB621593	Khillon, R.,	<i>Pseudomonas</i>	2011	Assessment of <i>pseudomonas</i>

		Maheshwari, D.K.	<i>fluorescens</i> gene for 16S rRNA, partial sequence, strain: MPF29.		<i>fluorescens</i> from <i>Macrotyloma uniflorum</i> L.
21	AB621591	Khillon, R., Maheshwari, D.K.	<i>Pseudomonas fluorescens</i> gene for 16S rRNA, partial sequence, strain: MPF18.	2011	Assessment of <i>pseudomonas fluorescens</i> from <i>Macrotyloma uniflorum</i> L.
22	AB621592	Khillon, R., Maheshwari, D.K.	<i>Pseudomonas fluorescens</i> gene for 16S rRNA, partial sequence, strain: MPF25.	2011	Assessment of <i>pseudomonas fluorescens</i> from <i>Macrotyloma uniflorum</i> L.
23	AB665552	Aeron, A. and Maheshwari, D.K.	<i>Pseudomonas fluorescens</i> gene for 16S rRNA, partial sequence, strain: PRS3.	2011	assessment of <i>Pseudomonas fluorescens</i> from <i>Mucuna pruriens</i> L
24	AB665551	Aeron, A. and Maheshwari, D.K.	<i>Pseudomonas fluorescens</i> gene for 16S rRNA, partial sequence, strain: PRS4.	2011	assessment of <i>Pseudomonas fluorescens</i> PRS4 from <i>Mucuna pruriens</i> L.
25	AB632370	Khillon, R. and Maheshwari, D.K.	<i>Pseudomonas fluorescens</i> gene for 16S ribosomal RNA, partial sequence, strain: FPG3.	2011	Assessment of <i>Pseudomonas fluorescens</i> from <i>Macrotyloma uniflorum</i> L.
26	AB632371	Khillon, R. and Maheshwari, D.K.	<i>Pseudomonas fluorescens</i> gene for 16S ribosomal RNA,	2011	Assessment of <i>pseudomonas fluorescens</i> from <i>Macrotyloma uniflorum</i> L.

			partial sequence, strain: FPK5.		
27	AB614497	Khillon, R. and Maheshwari, D.K.	<i>Serratia marcescens</i> gene for 16S ribosomal RNA, partial sequence.	2011	isolation of <i>Serratia marcescens</i> from <i>Macrotyloma uniflorum</i> L.
28	AB665549	Aeron, A. and Maheshwari, D.K.	<i>Sinorhizobium meliloti</i> gene for 16S rRNA, partial sequence, strain: RMP66.	2011	Isolation of <i>Sinorhizobium meliloti</i> RMP66 from <i>Mucuna pruriens</i> L.
29	JN546145	Prabha,C. and Maheshwari, D.K.	<i>Sinorhizobium meliloti</i> strain PCC7 16S ribosomal RNA gene, partial sequence.	2011	Ensifer meliloti isolated from root nodule of <i>Psoralea corylifolia</i> .
30	AB610483	Khillon, R. and Maheshwari, D.K.	<i>Sinorhizobium meliloti</i> gene for 16S rRNA, partial sequence, strain: PRG3.	2011	assessment of rhizobial diversity from <i>Phaseolus vulgaris</i> L.
31	AB610484	Khillon, R. and Maheshwari, D.K.	<i>Sinorhizobium meliloti</i> gene for 16S rRNA, partial sequence, strain PRK1.	2011	assessment of rhizobial diversity from <i>Phaseolus vulgaris</i> L.
32	JN546144	Prabha,C. and Maheshwari, D.K.	<i>Rhizobium leguminosarum</i> strain PCC2 16S ribosomal RNA gene, partial sequence.	2011	Rhizobium isolated from root nodule of <i>Psoralea corylifolia</i> , growing in Uttarakhand, India
33	AB608021	Khillon, R. and Maheshwari, D.K.	<i>Rhizobium leguminosarum</i> gene for 16S rRNA, partial	2011	Assessment of rhizobial diversity from <i>Phaseolus vulgaris</i> L.

			sequence, strain: PVR3.		
34	AB608022	Khillon, R. and Maheshwari, D.K.	<i>Mesorhizobium loti</i> gene for 16S rRNA, partial sequence, strain: PVR9.	2011	Assessment of rhizobial diversity from <i>Phaseolus vulgaris</i> L.
35	AB665550	Aeron, A. and Maheshwari, D.K.	<i>Bradyrhizobium diazoefficiens</i> gene for 16S rRNA, partial sequence.	2011	Isolation of <i>Bradyrhizobium japonicum</i> from <i>Mucuna pruriens</i> L
36	AB614498	Khillon, R.K. and Maheshwari, D.K.	<i>Bradyrhizobium japonicum</i> gene for 16S ribosomal RNA, partial sequence.	2011	isolation of <i>Bradyrhizobium japonicum</i> from <i>Macrotyloma uniflorum</i> L.
37	AB617527	Khillon, R. and Maheshwari, D.K.	<i>Methylobacterium</i> sp. RK-2008-1 gene for 16S ribosomal RNA, partial sequence.	2011	isolation of <i>Methylobacterium</i> sp. from <i>Macrotyloma uniflorum</i> L.
38	HQ415809	Khillon, R. and Maheshwari, D.K.	<i>Bacillus</i> sp. MUR8 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
39	HQ415805	Khillon, R. and Maheshwari, D.K.	<i>Bacillus pumilus</i> strain MUR4 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
40	HQ415803	Khillon, R. and Maheshwari, D.K.	<i>Bacillus subtilis</i> strain MUR2 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
41	HQ415814	Khillon, R. and	<i>Bacillus</i> sp. MUR11	2010	Plant growth promoting activities

		Maheshwari, D.K.	16S ribosomal RNA gene, partial sequence ACCESSION HQ415814		of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
42	HQ415806	Khillon, R. and Maheshwari, D.K.	<i>Bacillus pumilus</i> strain MUR5 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
43	HQ415804	Khillon, R. and Maheshwari, D.K.	<i>Bacillus subtilis</i> strain MUR3 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
44	HQ415802	Khillon, R. and Maheshwari, D.K.	<i>Bacillus</i> sp. MUR1 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
45	HQ230309	Khillon, R. and Maheshwari, D.K.	<i>Bacillus</i> sp. MUR15 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
46	HQ415817	Khillon, R. and Maheshwari, D.K.	<i>Bacillus</i> sp. MUR14 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
47	HQ415816	Khillon, R. and Maheshwari, D.K.	<i>Paenibacillus</i> sp. MUR13 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
48	HQ415811	Khillon, R. and Maheshwari, D.K.	<i>Paenibacillus</i> sp. MUR9 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.

49	HQ415812	Khillon, R. and Maheshwari, D.K.	<i>Paenibacillus</i> sp. MUR10 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
50	HQ415808	Khillon, R. and Maheshwari, D.K.	<i>Paenibacillus</i> sp. MRK11 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
51	HQ415807	Khillon, R. and Maheshwari, D.K.	<i>Paenibacillus polymyxa</i> strain MRG8 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
52	HQ415815	Khillon, R. and Maheshwari, D.K.	<i>Paenibacillus polymyxa</i> strain MRG4 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
53	HQ415818	Khillon, R. and Maheshwari, D.K.	<i>Pseudomonas aeruginosa</i> strain MUP1 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
54	HM805114	Aeron, A. and Maheshwari, D.K.	<i>Pseudomonas alcaliphila</i> strain RCT11 16S ribosomal RNA gene, partial sequence.	2010	Isolation and characterization of plant growth promoting bacteria
55	HQ123430	Maheshwari, D.K.	<i>Pseudomonas aeruginosa</i> strain LPT5 16S ribosomal RNA	2010	Reduction in dose of chemical fertilizers and growth enhancement of sesame

			gene, partial sequence.		(<i>Sesamum indicum</i> L.) with application of rhizospheric competent <i>Pseudomonas aeruginosa</i> LES4.
56	HQ123431	Maheshwari, D.K.	<i>Pseudomonas aeruginosa</i> strain LES4 16S ribosomal RNA gene, partial sequence.	2010	Reduction in dose of chemical fertilizers and growth enhancement of sesame (<i>Sesamum indicum</i> L.) with application of rhizospheric competent <i>Pseudomonas aeruginosa</i> LES4.
57	AB602853	Khillon, R. and Maheshwari, D.K.	<i>Pseudomonas fluorescens</i> gene for 16S ribosomal RNA, partial sequence, strain: MPF7.	2010	Isolation of <i>Pseudomonas fluorescens</i> from <i>Macrotyloma uniflorum</i> L.
58	AB602399	Khillon, R. and Maheshwari, D.K.	<i>Pseudomonas fluorescens</i> gene for 16S ribosomal RNA, partial sequence, strain: MPF3.	2010	Isolation of <i>Pseudomonas fluorescens</i> from <i>Macrotyloma uniflorum</i>
59	HM805109	Aeron, A. and Maheshwari, D.K.	<i>Pseudomonas geniculata</i> strain RCT2 16S ribosomal RNA gene, partial sequence.	2010	Isolation and characterization of plant growth promoting bacteria from root nodules of <i>Clitoria ternatea</i> L.
60	HM805115	Aeron, A. and Maheshwari, D.K.	<i>Stenotrophomonas maltophilia</i> strain RCT30 16S ribosomal RNA gene partial sequence.	2010	Isolation and characterization of plant growth promoting bacteria from root nodules of <i>Clitoria ternatea</i> L.

61	HM771691	Aeron, A. and Maheshwari, D.K.	<i>Stenotrophomonas maltophilia</i> strain RCT31 16S ribosomal RNA gene, partial sequence.	2010	Isolation and characterization of non-rhizobial plant growth promoting bacteria from root nodules of <i>Clitoria ternatea</i> L.
62	HM771694	Aeron, A. and Maheshwari, D.K.	<i>Sphingobacterium thalpophilum</i> strain RCT1 16S ribosomal RNA gene, partial sequence.	2010	Isolation and characterization of non-rhizobial plant growth promoting bacteria from root nodules of <i>Clitoria ternatea</i> L.
63	GU474519	Kumar,H., Maheshwari, D.K. and Dubey,R.C.	<i>Sinorhizobium meliloti</i> strain RHT2 16S ribosomal RNA gene, partial sequence.	2010	Effect of Plant Growth Promoting Rhizobia on Growth Promotion and suppression of Fusarial Wilt of Fenugreek (<i>Trigonella foenum-graecum</i> L.)
64	AB572351	Khillon, R. and Maheshwari, D.K.	<i>Sinorhizobium meliloti</i> gene for 16S rRNA, partial sequence, strain:MRK10.	2010	<i>Sinorhizobium meliloti</i> 16S ribosomal gene
65	AB569639	Khillon, R.	<i>Rhizobium leguminosarum</i> gene for 16S rRNA, partial sequence, strain:MRG6.	2010	<i>Rhizobium leguminosarum</i> 16S ribosomal gene
66	HM771694	Aeron, A. and Maheshwari, D.K.	<i>Sphingobacterium thalpophilum</i> strain RCT1 16S ribosomal RNA gene, partial sequence.	2010	Isolation and characterization of non-rhizobial plant growth promoting bacteria from root nodules of <i>Clitoria ternatea</i> L.

67	HQ415801	Khillon, R. and Maheshwari, D.K.	Bacterium MRG2 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
68	HQ415810	Khillon, R. and Maheshwari, D.K.	Bacterium MRK7 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
69	HQ415813	Khillon, R. and Maheshwari, D.K.	Bacterium MRG7 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
70	HM771692	Aeron, A. and Maheshwari, D.K.	<i>Achromobacter xylosoxidans</i> strain RCT3 16S ribosomal RNA gene, partial sequence.	2010	Isolation and characterization of non-rhizobial plant growth promoting bacteria from root nodules of <i>Clitoria ternatea</i> L.
71	HM805110	Aeron, A. and Maheshwari, D.K.	<i>Achromobacter xylosoxidans</i> strain RCT4 16S ribosomal RNA gene, partial sequence.	2010	Isolation and characterization of plant growth promoting bacteria from root nodules of <i>Clitoria ternatea</i> L.
72	HM805111	Aeron, A. and Maheshwari, D.K.	<i>Achromobacter xylosoxidans</i> strain RCT7 16S ribosomal RNA gene, partial sequence.	2010	Isolation and characterization of plant growth promoting bacteria from root nodules of <i>Clitoria ternatea</i> L.
73	HM805112	Aeron, A. and Maheshwari, D.K.	<i>Enterobacter turicensis</i> strain RCT5 16S ribosomal RNA gene, partial sequence.	2010	Isolation and characterization of plant growth promoting bacteria from root nodules of <i>Clitoria ternatea</i> L.

74	HM805113	Aeron, A. and Maheshwari, D.K.	<i>Enterobacter cloacae</i> strain RCT8 16S ribosomal RNA gene, partial sequence.	2010	Isolation and characterization of plant growth promoting bacteria from root nodules of <i>Clitoria ternatea</i> L.
75	HM771693	Aeron, A. and Maheshwari, D.K.	<i>Enterobacter hormaechei</i> strain RCT10 16S ribosomal RNA gene, partial sequence.	2010	Isolation and characterization of non-rhizobial plant growth promoting bacteria from root nodules of <i>Clitoria ternatea</i> L.
76	HQ415819	Khillon, R. and Maheshwari, D.K.	<i>Enterococcus</i> sp. MRG13 16S ribosomal RNA gene, partial sequence.	2010	Plant growth promoting activities of root nodule isolates from <i>Macrotyloma uniflorum</i> L.
77	GU057901	Khare, S., Dubey, R.C. and Maheshwari, D.K.	<i>Bacillus</i> sp. BSK7 16S ribosomal RNA gene, partial sequence.	2009	Isolation of Bacilli from disease suppressive soil & their role against deleterious phytopathogens
78	GU057899	Khare, S., Dubey, R.C. and Maheshwari, D.K.	<i>Bacillus subtilis</i> strain BSK4 16S ribosomal RNA gene, partial sequence.	2009	Isolation of Bacilli from disease suppressive soil & their role against deleterious phytopathogens.
79	GU057897	Khare, S., Dubey, R.C. and Maheshwari, D.K.	<i>Bacillus subtilis</i> strain BSK2 16S ribosomal RNA gene, partial sequence.	2009	Isolation of <i>Bacilli</i> from disease suppressive soil & their role against deleterious phytopathogens
80	GU057902	Khare, S., Dubey, R.C. and Maheshwari, D.K.	<i>Bacillus subtilis</i> strain BSK17 16S ribosomal RNA gene, partial sequence.	2009	Isolation of <i>Bacilli</i> from disease suppressive soil & their role against deleterious phytopathogens

81	GU057900	Khare, S., Dubey,R.C. and Maheshwari, D.K.	<i>Bacillus subtilis</i> strain BSK6 16S ribosomal RNA gene, partial sequence.	2009	Isolation of <i>Bacilli</i> from disease suppressive soil & their role against deleterious phytopathogens
82	GU057898	Khare,S., Dubey,R.C. and Maheshwari, D.K.	<i>Bacillus subtilis</i> strain BSK3 16S ribosomal RNA gene, partial sequence.	2009	<i>Bacillus subtilis</i> strain BSK3 16S ribosomal RNA gene, partial sequence.
83	GU057896	Khare, S., Dubey,R.C. and Maheshwari, D. K.	<i>Paenibacillus polymyxa</i> strain BSK1 16S ribosomal RNA gene, partial sequence.	2009	Isolation of bacilli from disease suppressive soil & their role against deleterious phytopathogens.
84	GU369972	Aeron,A., Dubey,R.C. and Maheshwari, D.K.	<i>Paenibacillus polymyxa</i> strain RCP6 16S ribosomal RNA gene, partial sequence.	2009	<i>Paenibacillus polymyxa</i> RCP6 isolated from root nodules of bluepea show strong antagonistic activity against several fungal phytopathogens
85	GQ217532	Choure,K., Maheshwari, D.K. and Dubey, R.C.	<i>Pseudomonas</i> <i>fluorescens</i> strain LPK2 16S ribosomal RNA gene, partial sequence.	2009	Isolation and characterization of rhizobacteria from <i>Cajanus cajan</i> . L.
86	GQ169037	Maheshwari,D. and Dubey, R.C.	<i>Sinorhizobium fredii</i> strain KCC5 16S ribosomal RNA gene, partial sequence.	2009	Genetic diversity of rhizobia from <i>Cajanus Cajan</i>
87	EU274299	Kumar,V., Dubey, R.C. and Maheshwari, D.K.	<i>Azotobacter</i> <i>chroococcum</i> strain AZO2 16S ribosomal RNA gene, partial	2007	-----

			sequence.		
88	DQ383271	Singh, N., Pandey,P., Dubey, R.C. and Maheshwari, D.K.	<i>Bacillus subtilis</i> strain BN1 16S ribosomal RNA gene, partial sequence.	2006	Biological control of root rot fungus <i>Macrophomina phaseolina</i> and growth enhancement of <i>Pinus</i> <i>roxburghii</i> (Sarg.) by rhizosphere
89	EF157824	Wahla,V., Pandey, P., Maheshwari, D.K. and Jain, R.K.	<i>Pseudomonas</i> <i>aeruginosa</i> strain VP1 16S ribosomal RNA gene, partial sequence.	2006	Identification of bacteria from rhizosphere
90	EF157823	Wahla,V., Pandey, P., Maheshwari, D.K. and Jain,R.K.	<i>Pseudomonas</i> <i>aeruginosa</i> strain VP2 16S ribosomal RNA gene, partial sequence.	2006	Identification of bacteria from rhizosphere.
91	DQ683361	Kumar, T. and Maheshwari, D.K.	<i>Pseudomonas</i> <i>aeruginosa</i> strain LPT3 16S ribosomal RNA gene, partial sequence.	2006	Sequence of nematicidal <i>Pseudomonas aeruginosa</i> LPT3
92	AY551271	Kang,S.C. and Park,S.	<i>Burkholderia</i> sp. MSSP 16S ribosomal RNA gene, partial sequence.	2004	<i>Burkholderia</i> sp. MSSP 16S rRNA gene.
93	AB015420	Ogasawara, M., Suzuki,T., Mutoh,I., Annapurna,K., Arora,N.K.,Nishim ura,Y. And Maheshwari, D.K.	<i>Sinorhizobium</i> <i>indiaense</i> gene for 16S rRNA, partial sequence, strain: Ra-3.	1998	<i>Sinorhizobium indiaense</i> sp. nov. and <i>Sinorhizobium abri</i> sp. nov. Isolated from Tropical Legumes, <i>Sesbania rostrata</i> and <i>Abrus</i> <i>precatorius</i> , Respectively.
94	AB015421	Ogasawara,M., Suzuki,T.,	<i>Sinorhizobium abri</i> gene for 16S rRNA,	1998	<i>Sinorhizobium indiaense</i> sp. nov. and <i>Sinorhizobium abri</i> sp.

Mutoh,I, partial sequence, strain: nov.Isolated from Tropical
Annapurna,K., HA-1. Legumes, *Sesbania rostrata* and
Arora,N.K., *Abrus precatorius*, Respectively.
Nishimura,Y. and
Maheshwari, D.K.